



# PUBLIC NOTICE

Federal Communications Commission  
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**WIRELESS TELECOMMUNICATIONS BUREAU SEEKS COMMENT  
ON AVATAR ENVIRONMENTAL, LLC, REPORT  
REGARDING MIGRATORY BIRD COLLISIONS WITH COMMUNICATIONS TOWERS  
WT Docket No. 03-187**

**Comment Date: January 13, 2005**

**Reply Date: January 28, 2005**

In this Public Notice, we seek comment on the report of Avatar Environmental, LLC, (Avatar), regarding migratory bird collisions with communications towers, filed in the above-referenced docket.<sup>1</sup> The report does not necessarily reflect the view of the Commission or its staff.

## **I. Introduction.**

On August 20, 2003, the Commission released a Notice of Inquiry, *In the Matter of Effects of Communications Towers on Migratory Birds*, to develop a record on how, and to what extent, migratory birds may be affected by our nation's communications infrastructure.<sup>2</sup> The *NOI* sought comment on existing scientific research concerning the number of migratory bird collisions with communications towers and the role that specific factors, such as lighting, height and type of antenna structure, weather, location, physiographic features of sites, and migration paths, may have in increasing or decreasing the incidence of such collisions.<sup>3</sup> The Commission also asked "whether certain measures might minimize any adverse impacts of communications tower siting and construction on migratory birds, whether any such measures are supported by adequate and reliable empirical and/or scientific evidence, and how the use of such measures may affect the ability of licensees and other parties to provide efficient and reliable communications services."<sup>4</sup> In addition, the Commission sought comment on what additional study or studies may be needed, what variables the research should address, and what types of procedures should be used to monitor birds that may be killed at communications towers during these studies.<sup>5</sup> In response to the *NOI*, the Commission received a number of comments and reply comments that referred to scientific studies of past incidents of migratory birds colliding with communications towers.

<sup>1</sup> See *Notice of Inquiry Comment Review Avian/Communication Tower Collisions, Final, Prepared for Federal Communications Commission*, by Avatar Environmental, LLC (filed December 10, 2004) (*Avatar Report*), WT Docket No. 03-187.

<sup>2</sup> *In the Matter of Effects of Communications Towers on Migratory Birds*, WT Docket No. 03-187, *Notice of Inquiry*, 18 FCC Rcd 16938 (2003) (*NOI*).

<sup>3</sup> *Id.* at 16938, ¶ 1.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 16951, ¶ 25.

## II. Report of Avatar Environmental, LLC.

To help the Commission evaluate these scientific studies, the Commission retained Avatar, an environmental risk consulting firm. After reviewing the scientific studies referred to by the comments and reply comments, Avatar submitted a report of its findings. In a section entitled "Conclusions and Recommendations," Avatar explained that "[a]lthough most of the causes and possible solutions for increased avian mortalities associated with communication structures remain speculative, a few conclusions have been advanced with some degree of confidence within the scientific community studying this problem."<sup>6</sup> Specifically, Avatar advised that the existing state of knowledge tends to support the following:

- The greatest bird mortality tends to occur on nights with low visibility conditions, especially fog, low cloud ceiling, or other overcast conditions.
- All other things being equal, taller towers with lights tend to represent more of a hazard to birds than shorter, unlit, towers.
- Towers with guy wires are at higher risk than self-supporting towers.
- Two collision mechanisms appear to be a factor in bird collisions: 1) blind collision and 2) illuminated sphere of influence.
- Certain avian families tend to be more affected than others, among them vireos, warblers, and thrushes.
- The seasonal pattern exhibits a pronounced collision spike during fall migration and another smaller spike during spring migration. However, bird collisions with towers can occur any time of the year under any weather condition.
- There are no studies to date that demonstrate an unambiguous relationship between avian collisions with communication towers and population decline of migratory bird species.
- Although biologically significant tower kills have not been demonstrated in the literature, the potential does exist, especially for threatened and endangered species.
- More research is warranted in order to identify specific causes and possible solutions to this problem.<sup>7</sup>

Avatar made a number of short-term and long-term recommendations it considered "necessary to reduce the substantial uncertainty associated with the magnitude of bird collisions and causative factors." The short-term recommendations, which Avatar recommends be completed within six months to a year, are: (1) continue participation in the Communication Tower Working Group and monitor proposed research projects, by supporting its Research Subcommittee in developing mitigation measures and other information important in understanding the factors contributing to bird collisions; (2) work with applicable research entities and the telecommunication industry to identify the most appropriate approach and mechanism to develop standardized methods and metrics for data collection and monitoring; (3) develop guidance on standard methods to account for the following survey biases: scavenger or predator removal, crippling, searcher efficiency, and habitat; (4) continue to research why birds are attracted to artificial lights on towers; (5) encourage the Federal Aviation Administration, the lead agency on lighting issues, to continue research on what aspects of avian vision contribute to collisions with towers; (6) recommend that those monitoring towers for mortality and abundance of birds near towers also collect information on behaviors to avoid collisions; (7) provide guidance to measure the impact that avian mortality at communications towers has on resident bird populations; (8) provide guidance to study the impact that differences between bird species have on the susceptibility of certain bird species to tower collisions; (9) develop baseline information on bird densities, movements, altitudes, and behaviors during

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<sup>6</sup> Avatar Report at 5-1.

<sup>7</sup> Avatar Report at 5-1 - 5-2.

migration near tower sites; (10) encourage research on potential measures that might mitigate avian mortality, particularly mass mortality, at communication towers; (11) determine whether mitigation measures used for transmission lines and wind turbines are appropriate for communications towers; (12) develop a more specific set of FCC National Environmental Policy Act biological scoping issues for the Environmental Checklist Assessment; and (13) readdress U.S. Fish and Wildlife Service (FWS)'s voluntary guidelines to eliminate some of the confusion regarding their voluntary implementation and provide comment on those components about which more research is necessary.<sup>8</sup>

Avatar recommends that the following long-term recommendations be completed within a year to three years: (1) review the results of current studies such as the Michigan State Police Tower Study and the U.S. Coast Guard "Rescue 21" Study and incorporate those results into the FCC's review of tower applications; (2) work with the Communication Tower Working Group's Research Subcommittee to produce a comprehensive guidance document with input from applicable research entities in order to standardize research approaches and facilitate problem resolution; (3) conduct laboratory controlled studies into avian vision that are tiered off of the study prepared by R.C. Beason, entitled "The bird brain: magnetic cues, visual cues, and radio frequency (RF) effects" (2000); (4) develop appropriate criteria or ecological parameters, similar to those approaches used for wind turbines, for use in tower siting; and (5) adapt the Potential Impact Index, which the FWS uses to assess the impact of the locations of wind turbines on the environment for use with communications towers.<sup>9</sup>

### III. Comments.

We invite comment on all aspects of Avatar's report. Pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before January 13, 2005, and reply comments on or before January 28, 2005. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.<sup>10</sup> Given recent changes in the Commission's mail delivery system, parties are strongly urged to use the ECFS to file their pleadings. Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, electronic filers should include their full name, Postal Service mailing address, and the applicable docket number. Parties may also submit an electronic comment by Internet e-mail. To receive filing instructions for e-mail comments, commenters should send an email to [ecfs@fcc.gov](mailto:ecfs@fcc.gov), and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply.

Parties who choose to file by paper must file an original and four copies of each filing. All filings by mail (including U.S. Postal Service Express Mail, Priority Mail, and First Class Mail) must be sent to the Commission's Secretary, Marlene H. Dortch, Federal Communications Commission, Office of the Secretary, 445 12th Street, S.W., Washington D.C. 20054. All filings sent to the Commission by overnight delivery, e.g., Federal Express (other than by U.S. Postal Service Express Mail and Priority Mail), must be sent to the Commission's Secretary, Marlene H. Dortch, Federal Communications Commission, Office of the Secretary, 9300 East Hampton Drive, Capitol Heights, MD 20743. All hand-delivered or messenger-delivered filings must be delivered to the Commission's filing location at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002-4913. The filing hours at this facility are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.

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<sup>8</sup> *Avatar Report* at 5-4 - 5-14.

<sup>9</sup> *Avatar Report* at 5-4 - 5-14.

<sup>10</sup> See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24,121 (May 1, 1998).

Parties who choose to file by paper should also submit their comments on diskette to: Louis Peraertz, Spectrum and Competition Policy Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. The required diskette copies of submissions should be on 3.5-inch diskettes formatted in an IBM-compatible format using Microsoft Word or compatible software. Each diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding, type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy – Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, Qualex International, Portals II, 445 12th Street S.W., CY-B402, Washington, D.C. 20554.

Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Information Center, Federal Communications Commission, 445 12th Street, S.W., Room CY-A257, Washington, D.C. 20554. These documents also will be available electronically from the Commission's Electronic Comment Filing System. Copies of filings in this proceeding may be obtained from Qualex International, Portals II, 445 12th Street, S.W., Room CY-B402, Washington, D.C., 20554, telephone (202) 863-2893, facsimile (202) 863-2898, or via e-mail at [qualexint@aol.com](mailto:qualexint@aol.com). To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0531 (voice), 202-418-7365 (tty).